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Vital Construction

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Rochester Institute of Technology
A Thesis Submitted to the Faculty of
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School for American Crafts
In Candidacy for the Degree of
Master of Fine Arts
Furniture Design

Vital Construction

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I. Abstract

Life is a structure built by units of personal experiences. Furniture is a structure built by units of simple components. I cherish every influential experience in my life. Relationships with my family and friends have always been an irreplaceable motivation for me. The unconditional love from my family and the strong bond I have with my close friends are great comforts to me and guide me to be an optimistic person. Meanwhile, I enjoy the diversity of assembling simple components to create a composition with visual impact; and the dynamic free-flowing space contained in forms. All those above inform my thesis body of work. I captured those significant moments in my life by making furniture pieces inspired by them. In the whole body of work, I made a side table-- Unity, a coat rack-- Diversity, a set of two displaying shelves-- Confluence, and a shoe rack-- What remains ...

For these pieces, there are different episodes of memory involved. Unity and Diversity share the same inspiration. It is to collect symbols and stories from experiences I shared with my college roommates. Confluence is related to stories between my mother and me. What remains... is created base on the memory of my lost friend-- I found that after our graduation, we are going to the opposite way from one intersection.

Collecting symbols and stories from those memories is always my first step. For my thesis body of work, I started from rewinding memories. Then I tried to capture the logic and symbols within those stories. In the meantime, I sketched to get a group of geometric shapes and patterns. By doing that, stories were abstracted to patterns that guided my design process. Symbols were blended into the objects. On the other hand, I always believe that the assembling process is unpredictable and fascinating. When single components are duplicated and mixed, countless possibilities will be generated. For my thesis body of work, I chose to use simple geometric shapes to form objects of various dimensions with cantilevered and overhanging elements.

Color plays an important role that serves each experiential concept in a complete form. In my view, color choice is an important part of a design format. I chose to use different finishes on each piece. Among my whole body of work, I made one piece with a natural wood finish, one piece with a black dye finish, and another piece partially finished with milk paint.

Wood choice is also a concern for me. Ash is one kind of wood carrying a bright, cutting tone. By contrast, walnut has a dark tone and a more gentle wood grain. Their

appearances are quite different, but they contract at a similar rate. In the whole body of work, ash is my primary wood choice while there is also a small amount of walnut involved.

II. Discussion of Sources and Research

When I started this series of thesis work, the most certain thing to me was my source of inspiration. During the whole time I was studying abroad, my relationship with family and friends has always been a tremendous support to me. Naturally, this became a great inspiration for my work. It intrigues me to explore the process of transforming a spiritual concept that might be a story or feeling into a real compositional object. To me, abstract art makes people think deeply and reflect on it. Also, abstract art can be evocative. It leads one to wonder whether there is a story behind it and what that story might say. I always believe that furniture can do that too. It can also suggest something while being functional. With this foundation, I began to explore the possibilities for incorporating my life experience into my furniture pieces.

Research helped me find my own unique path to design. In my undergraduate years, I was influenced by a lot of talented architects, such as Mies van der Rohe, Frank Lloyd Wright, Frank Gehry and Zaha Hadid. Different design movements affected them, and their works are entirely different. But I found all their works fascinating in a variety of ways. For Modernist architects, the form is not their only concern. They believe that “Form follows function.” For Post-Modernist architects, they are exploring how architecture could be unconventional and fresh theoretically and formally. More or less, I started to realize that the designing process is an expression of the uniqueness and individuality of human minds. Each designer has a different philosophy that draws relationships between concept, form and function. The divergence between people’s minds leads every design process to different results, which shows the beauty of creativity.

I was interested in designing with abstract concepts at that time. After my graduation, I found an internship in an architectural firm in China. I felt trapped by the drafting work on computer and the disconnection from the designing process and working by hand during that time. It drove me here to learn fine craftsmanship and to pursue a master degree in fine arts. Throughout these years, I have made several furniture pieces that expressed my fantasies, and most of them evolved through the crafting process. In every project, samples and models help me compose the piece and make decisions.

Wassily Kandinsky once said, “By now, it should be clear that for me form is only a means to an end, and that I spend so much time on the theory of form because I want to capture the inner secrets of form...”¹

A form can be a means to express everything, not only the outer beauty of colors and compositions but also the inner beauty of laws and patterns that create the form. With that being said, another method that helped me a lot is sketching. Along with my design process, I sketched a lot. I recall my memory, capture my feelings, and then sketch them down in lines and shapes. Through this process, I transfer my memories into graphics. Then graphics help me generate objects.

El Lissitzky, whose work greatly influenced the Bauhaus and constructivist movements, once criticized himself and other artists for having approached the problem of furniture design too theoretically.

We should take good models which have been realized in the world of furniture, and we should learn to make them accurately and firmly from the standpoint of the material used, its overall finish and its durability.²

Designing directs making and making also inspires design. In the early stage of my design process, specifically, when I was creating Unity, I made a huge amount of models that provide me various possibilities. Modeling became not only a design procedure but also a method of researching.

““Every piece of furniture is a little architectural structure,” H.P.Berlage believes. To him, therefore, the difference between applied art, architecture and urban planning is becoming blurred.”³

[1] Fischer, Hartwig; Rainbird, Sean; Behr, Shulamith; Tate Modern (Gallery) and Öffentliche Kunstsammlung Basel. Kandinsky: the path to abstraction/ edited by Hartwig Fischer and Sean Rainbird; with essays by Shulamith Behr... [et al.]. London: Tate. 2006. Print.

[2] Fiedler, Jeannie; Feierabend, Peter and Ackermann, Ute. Bauhaus/edited by Jeannine Fiedler and Peter Feierabend; with contributions from Ute Ackermann ... [et al. ; translation and editing from German, Translate-A-Book, Oxford]. Cologne; Könemann. 2000. Print.

[3] Janssen, Hans. The story of De Stijl: Mondrian to Van Doesburg. Abrams. 2011. Print.

I totally agreed with that. To me, the most significant difference between furniture, architecture, and urban planning is the scale. Then the word “Construction” occurs to me. As my architecture background has influenced me a lot, I can incorporate some elements of architectural construction into my furniture pieces, specifically, primary supporting systems, cantilever members, grey space, etcetera. I was inspired by them and used a lot of simple lines, geometric shapes, square cross-sections, and cantilever members in my furniture design pieces. Together, they bring the pieces a sharp and modern look. Researches about the relationship between forms and concept kept going throughout my whole process.

As Mondrian slowly but surely, through experimentation, comes to the conclusion that pure, intense, inner colors (the primary colors) and a strong, simple manifestation of the line (the horizontal and the vertical) could help realize such an abstract form of art. The visual manifestation- he calls it ‘beelding’ (plasticism) – is not an aim in itself; it is based on philosophical and more considerations. Thus, beauty becomes truly visible in life.⁴

Research about De Stijl artists makes me realize that how great a composition with simple lines and primary colors can be. Another thing that I found fascinating is the assemblage of all these simple elements. A simple rectangle may seem boring, but having three of them together in different planes with angles creates impact.

“As Mondrian once said, “I found that the right angle is the only constant relationship and that through the proportion of the dimensions one can confer movement, that is, life, to its immutable expression.””⁵

Using simple shapes, primary colors, and a right angle are all means to express the composition in one piece more directly. De Stijl artists simplified every element of the form until only one was left, the core structure of equilibrium, and eliminated from their visual “equation” whatever was inessential so as to reach a new visual conception. Thus, I set a goal for myself to use only simple geometric shapes as my primary design components. To create a compositional form with those basic units, various dimensions, in different horizontal and vertical arrangements will frequently be involved.

[4] Janssen, Hans. *The story of De Stijl: Mondrian to Van Doesburg*. Abrams. 2011. Print.

[5] Jong, Cees de, editor; Otte Katjuscha; Vermeulen, Ingelies; Welsh, Robert P; Bax, Marty and Degen, Majory. *Piet Mondrian : life and work / edited by Cees W. de Jong ; [with contributions by] Katjuscha Otte, Ingelies Vermeulen, Robert P. Welsh, Marty Bax, Marjory Degen*. New York, NY: Abrams. 2015. Print.

Otto Fischer, who has been director of the Basel Kunstsammlung once wrote, “*The power of color is a sign of the new conception ... Color is a means of representation ... of expression ... of composition.*”⁶ Along with other components, the use of color has also become a means for me to bring contrast and impact into my compositional furniture pieces conceptually and formally.

In applying this research, I attempted to abstract a story by making *Unity*. By making this piece, I started to get a sense of abstracting memory into visual forms that guides my design process. Also, I began to form a design format that fits this body of work.

[6] Grohmann, Will. *Wassily Kandinsky: life and work*. [Translated from the German by Norbert Guterman]. New York, H. N. Abrams. 1958. Print.

III. Critical Analysis

This body of work is inspired by my life experiences. I collected three important experiences as the source of inspiration. This series explores how personal memory can be abstracted and integrated into my furniture design process and, ultimately, composed into furniture pieces of a modern architectural sensibility.

Unity

Growing up as the only child in a traditional Chinese family, I have a strong bond with my parents. They protected me and guided me. They provided me a happy and memorable childhood. I feel so grateful for having them as my parents. After I graduated from high school, I flew across half of China to start my college life. Living in a new city with three strangers was not that easy for me. I shared a small dorm room with those strangers: three other girls. We came from different areas in China, and our lifestyles had been entirely different, as well. Of course, there was divergence and tension between the four of us. However, we found our way to ignore the differences and embrace our common interests. After five years living together, the four of us became good friends. Our small dorm room changed into a home for us. We supported each other as my parents had supported me. Those five years meant a lot to me as it pushed me to become an independent individual; a memory so important to me that it became the biggest inspiration for my first piece.

Unity is a side table made by dyed ash. The memory of my college roommates and the life we had back in our college time inspired me. Four strangers living together in one dorm room and becoming good friends is a sweet and cherished memory to me; a

memory that influenced a side table composition where four different components come together to form a complete structure.

Therefore, I designed this small side table that has four small tabletops set on different levels. There is one piece sets vertically connecting four tabletops and another three pieces set horizontally connecting four legs. In this case, every piece of wood is essential. No more, no less. Through the making process, I discovered that multiple dowels and mortise and tenon joints - invisible joints – which give the connection a clean and crispy look. That rings a bell of how concrete wall and ceiling meets in a modern architecture design. Here in this piece, the size of tabletops and legs are not the same, so that a part of tabletops are cantilevering out which create movement. On the other hand, I chose to dye the whole piece with black to give this piece a modern look.



Unity, Dyed Ash, 15" L x 15" W x 22" H , 2016

Confluence

Confluence is a set of two displaying shelves. I designed them for displaying small objects such like teapots and potted succulents. The memory I share with my mother inspired me to make this piece. I have a great mother who is also my best friend. While she loves drinking traditional Chinese tea and is obsessed with the Gongfu Tea Ceremony, I like gardening and growing succulents a lot. Back in our home, there are a lot of succulent plants. As time goes by, watering and taking care of plants became part of my mother's life. In my daily life, making a cup of traditional Chinese green tea has become my morning routine. Our criss-crossing of dissimilar interests had inspired me to create a piece where two noticeably different geometric motifs merge and become one.



Confluence, Walnut and Painted Ash, 18" L x 7" W x 18" H, 2016

To do that, I created a composition of two different formal subjects coming together and influencing each other. In one shelf, I made the triangle part with milk-painted Ash and the perpendicular part with natural Walnut. In the other shelf, I switched the material choice as an opposite attempt. Each shelf comes together as one piece at first glance, but one can also sense their individuality. In these shelves, I am using mortise and tenon joints in the "square" part while using half-lap joints in the "triangle" part to further establish their differences. Transitions in these pieces are also sharp and crispy to emulate the aesthetic of modern architecture.



Confluence, Detail, 2016

What Remains...

While I was making my first piece, another memory hit me. Sometimes friendship fades away. I have a childhood friend who went to the same elementary school with me. We always walked to school together and played together after school. She was my best friend back then. But after we graduated from elementary school, we lost our connection. Little by little, we became a piece of memory to each other, and our friendship faded. I decided to use this memory as a source of inspiration. With that being said, I designed a shoe rack called *What Remains ...*

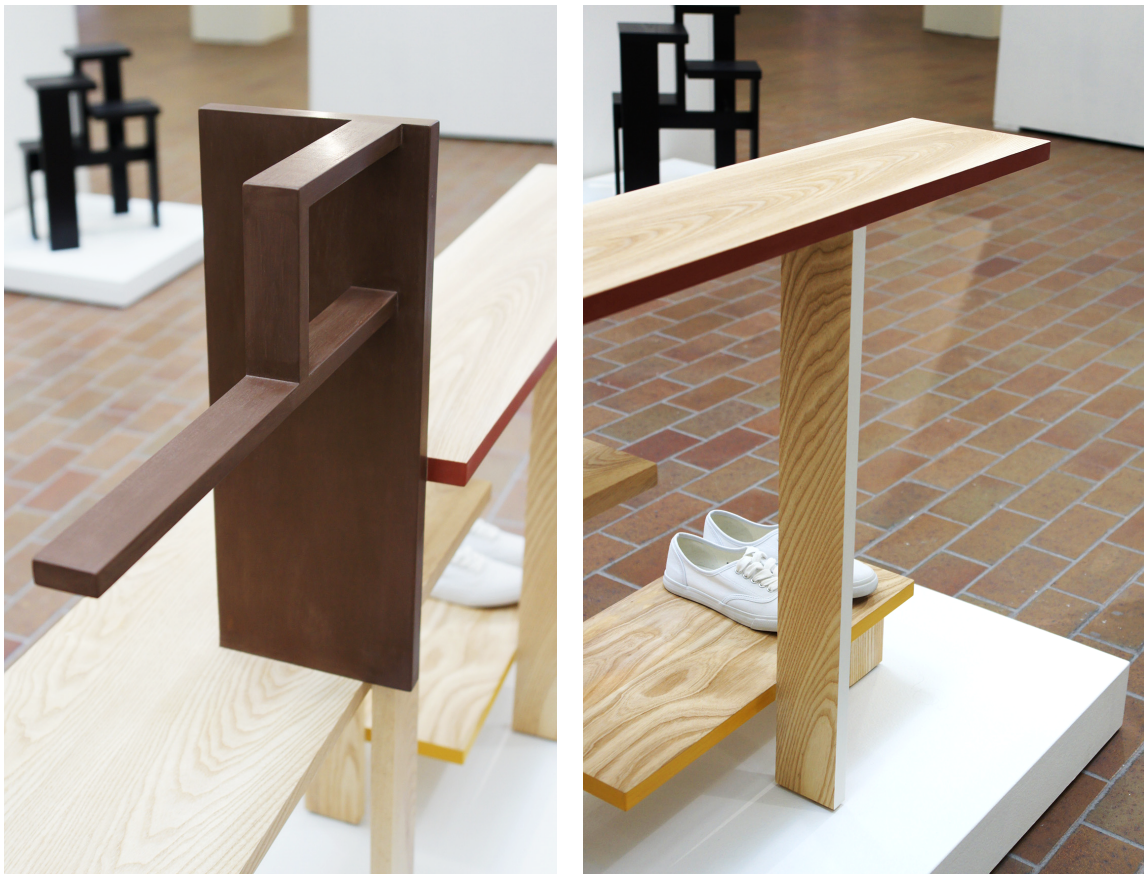
This piece is a shoe rack made of painted ash. The story of a lost friendship and a lost connection as time went by inspired me to create this composition in which two components interact and repel each other. Some edges in the left are painted with red, white and yellow. Those are vibrant colors that remind me of my childhood memory. In contrast, I painted the overhanging part with a warm brown color that indicates fading and inactivity. Parts on the left are wide and thick while parts on the right are narrow and thin. In this piece, there are several connections where three members meet. As modern architecture conceptually inspires me, I created a corner space that is more closed than other parts. That is not only an aesthetic choice but also a solution to strengthen the whole structure.



What Remains..., Painted Ash, 64" L x 15" W x 38" H, 2016

This piece is more emotionally tied to sadness than my other pieces. As my life goes on, some memories are fading away but will always take place in my mind. By making this shoe rack, I am locking up my sweet memory with this lost friend. Every time I see this piece, the happy moments we had together comes back to me. This piece may seem “awkward” for it is not visually balanced. But the awkwardness is thought-provoking and abstracted from my experience. Although this piece comes from a sad story, the bright and warm color choices make the piece vital, and actively represent my attitude towards lost connections. Remember it and let it be; always be positive about the future.

I designed this shoe rack to be a displaying rack that will sit in a big closet displaying some special shoes. The spaces between each level are different which create a possibility for having all range of shoes from heels to boots.



What Remains..., Detail, 2016

Diversity

Diversity is a coat rack design, which is the last piece I made. Before making this piece, I already made three pieces that are inspired by three different life experiences of mine. Also, I developed a consistent design language that I have been using in all of the other three pieces. So I decided to make another new design using one source of inspiration that I already used which is my memory with college roommates.

In this piece, four parts are interacting with each other. One of them is supporting the surface, and the other three of them grow as coat hangers. Like *Unity*, some small members are connecting those four vertical parts. Together they form the whole structure. I chose to use different dimensions for each member to add more changes in the piece. The bottom part of this coat rack is bigger and thicker than the top of it, indicating a sense of growth and provides strength to the structure.

To function well as a coat rack, I have considered the direction of placement and chose to make the hangers in the same direction. And I designed a small surface for placing keys and small objects.



Diversity, Ash, 22" L x 22" W x 72" H, 2016



Diversity, Detail, 2016

IV. Conclusion

The title of my thesis is “Vital Construction”. “Vital” stands for the life experiences that influenced this body of work; “Construction” is a means of designing and making it. Together, they formed my entire thesis body of work. Memories inspire me to create two-dimensional drawings and patterns. Two-dimensional drawings generate three-dimensional models. Models lead me to make furniture pieces. My design routine completed through the process of making.

In this body of work, I explored the possibilities of abstracting memories. Unlike furniture, stories and memories are metaphysical. To get inspiration from that and create furniture pieces, I translate my memories and thoughts into two-dimensional drawings.

In the memory I shared with my three college roommates, I captured the shape of our dorm room and beds. Also, I translate the relationship between us into a structure that holds four parts together. By duplicating and assembling these elements, I created three-dimensional objects inspired by my memory. Moving on to the memory I shared with my mother, I focused on the essentials of my story which is two people understanding and affecting each other with different lifestyles. Having this concept, I made two pieces wherein a rectangle and a triangle merge and became one. Lastly, I translate my story of my lost friend into two-dimensional drawings then created a composition that suggests a motion of divergence. The piece contains the color of my childhood while the world she is living in right now is blurred to me and therefore the piece also contains the color of darkness. The process of abstracting memories and stories into objects lays the foundation for my whole body of work.

Also, some of my material and color choices are made according to my sources of inspiration too. For example, in *Confluence*, I decided to use Ash and Walnut suggesting two different objects. In *What Remains...*, I chose to paint part of the edges with colors that reminds me of my childhood and another part with the color suggesting fading. The source of inspirations guided me to make some choices that appear unbalance and unexpected. Then those surprising parts attract people and make them think about the story behind it. That is where I think my pieces are provocative. It has also proved the possibility for furniture to contain abstract concepts like personal memories.

Throughout the whole body of work, I have developed a design format that is consistent. It contains simple lines, perpendicular surfaces, geometric shapes, etc. Mostly I am using invisible joints, but there are also small amounts of visible joints take part in for a reason. Also, cantilever members and different dimensions are involved in each design. By

duplicating, rearranging and combing those simple elements, I have created eye-catching compositions that reveal my aesthetic preference. I have created furniture that carries out the beauty of architectural structure.

Along with the process, I have experienced the struggle of designing and joy of making. It was a long journey through researching, exploring and making choices. But it is clear to me that furniture can contain emotions and be provocative. It encourages me to make more attempts to consider new relationships with furniture design and narrative. By doing that, furniture can not only meet its functional need but also convey human emotion and preserve personal memories.

V. Bibliography

[1] Fischer, Hartwig; Rainbird, Sean; Behr, Shulamith; Tate Modern (Gallery) and Öffentliche Kunstsammlung Basel. *Kandinsky: the path to abstraction/ edited by Hartwig Fischer and Sean Rainbird; with essays by Shulamith Behr... [et al.]*. London: Tate. 2006. Print.

[2] Fiedler, Jeannie; Feierabend, Peter and Ackermann, Ute. *Bauhaus/edited by Jeannine Fiedler and Peter Feierabend; with contributions from Ute Ackermann ... [et al. ; translation and editing from German, Translate-A-Book, Oxford]*. Cologne; Könemann. 2000. Print.

[3] Janssen, Hans. *The story of De Stijl: Mondrian to Van Doesburg*. Abrams. 2011. Print.

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